

APPENDIX OF PENDING CLAIMS

1. (Previously Amended) A method for producing a transformed plant, comprising the steps of: introducing a nucleic acid into a plant cell of green regenerative tissue to produce a transformed plant cell;

culturing the transformed plant cell under dim light of approximately 10 to 30 μ E on an incubation medium comprising an auxin and a cytokinin, thereby promoting proliferation and formation of a transformed structure that is competent to regenerate; and

culturing the transformed structure on a regeneration medium to produce the transformed plant.

2. (Original) The method of claim 1 wherein the auxin is selected from the group consisting of 2,4-dichlorophenoxyacetic acid, dicamba, naphthaleneacetic acid, indoleacetic acid, picloram, 2,4,5-trichlorophenoxyacetic acid and mixtures thereof.

3. (Original) The method of claim 1 wherein the cytokinin is selected from the group consisting of 6-benzylaminopurine, zeatin, zeatin riboside, kinetin, 2iP, and mixtures thereof.

4. (Previously Amended) The method of claim 1 wherein the auxin is at a concentration of about 0.1 mg/L to about 5 mg/L.

5. (Previously Amended) The method of claim 1 wherein the cytokinin is at a concentration of about 0.01 mg/L to about 5 mg/L.

6. (Previously Amended) The method of claim 1 wherein the incubation medium further comprises copper at a concentration of about 0.1 μ M to about 50 μ M.

7. (Previously Amended) The method of claim 1 wherein the incubation medium further comprises a carbon source.

8. (Previously Amended) The method of claim 1, wherein the auxin is at a concentration of about 0.1 mg/L to about 5 mg/L and the cytokinin is at a concentration of about 0.1 mg/L to about 5 mg/L; and the incubation medium further comprises copper at a concentration of about 0.1 μ M to about 50 μ M, and maltose.

9. (Cancelled)

10. (Original) The method of claim 1 further comprising selecting for the transformed plant cell by incubating the plant cell on a growth medium comprising a selective agent.

11. (Original) The method of claim 1 wherein the step of introducing the nucleic acid comprises bombardment of the green regenerative tissue with microprojectiles coated with the nucleic acid.

12. (Original) The method of claim 11 wherein bombardment is performed at below 1300 psi.

13. (Previously Amended) The method of claim 12 wherein bombardment is performed at about 900 to about 1100 psi.

14. (Original) The method of claim 1 wherein the plant is a monocotyledonous plant.
15. (Original) The method of claim 14 wherein the monocotyledonous plant is selected from the group consisting of barley, oat, wheat, maize, rice, sorghum, orchardgrass, tall fescue, red fescue, creeping bentgrass and Kentucky bluegrass.
16. (Original) The method of claim 15 wherein the barley is selected from the group consisting of Golden Promise, Galena, Harrington, Morex, Moravian III, and Salome.
17. (Original) The method of claim 15 wherein the wheat is selected from the group consisting of Bobwhite, Anza, Yecora Rojo and Karl.
18. (Original) The method of claim 15 wherein the maize is H99 or B73.
19. (Original) The method of claim 15 wherein the rice is Taipei 309.
20. (Original) The method of claim 15 wherein the orchardgrass is Rapido.
21. (Original) The method of claim 15 wherein the tall fescue is Ky 31.
22. (Original) The method of claim 15 wherein the red fescue is 43F-93
23. (Original) The method of claim 15 wherein the creeping bentgrass is Putter.
24. (Original) The method of claim 15 wherein the Kentucky bluegrass is Kenblue.

25. (Previously Amended) A method of preparing green regenerative tissue from a plant comprising incubating plant tissue on a growth medium under dim light of approximately 10 to 30 μ E for a sufficient time to produce green regenerative tissue, wherein the growth medium comprises auxin at a concentration of about 0.1 mg/L to about 5 mg/L, cytokinin at a concentration of from 0.00 mg/L to about 2 mg/L, copper at a concentration of about 0.1 μ M to about 50 μ M, and a carbon source.

26. (Original) The method of claim 25 wherein the auxin concentration is about 1 mg/L to about 2.5 mg/L and the cytokinin concentration is about 0.01 mg/L to about 0.5 mg/L.

27. (Original) The method of claim 25 wherein the auxin concentration is about 1 mg/L to about 2.5 mg/L, and the cytokinin is about 0.1 mg/L to about 2 mg/L.

28. (Original) The method of claim 25, wherein the auxin is selected from the group consisting of 2,4-dichlorophenoxyacetic acid, dicamba, naphthaleneacetic acid, indoleacetic acid, picloram, 2,4,5-trichlorophenoxyacetic acid and mixtures thereof, and the cytokinin is selected from the group consisting of zeatin, BAP, and mixtures thereof.

29. (Original) The method of claim 25 wherein the plant tissue is callus derived from an immature embryo or a mature seed.

30. (Original) The method of claim 29 wherein the immature embryo is an immature zygotic embryo.

31. (Original) The method of claim 29 wherein the callus is produced by a method comprising incubating the immature embryo on a callus-induction medium comprising auxin at a concentration of about 0.1 mg/L to about 5 mg/L, cytokinin at a concentration of from 0.0 mg/L to about 2 mg/L, copper at a concentration of about 0.1 μ M to about 50 μ M and a carbon source.

32. (Previously Amended) A method of producing the callus of claim 29 comprising the steps of:

germinating a seed on a callus-induction medium comprising auxin at a concentration of about 0.1 mg/L to about 5 mg/L, cytokinin at a concentration of from 0.0 mg/L to about 2 mg/L, copper at a concentration of about 0.1 μ M to about 50 μ M, and a carbon source, thereby allowing root and shoot formation;

excising and discarding the root and shoot from the germinating seed to produce a remaining portion of the germinating seed;

incubating the remaining portion of the germinating seed under dim light of approximately 10 to 30 μ E; and selecting nodular, compact structures that form on the remaining portion of the germinating seed to produce callus.

33. (Original) The method of claim 25 wherein the plant tissue is derived from a monocotyledonous plant.

34. (Original) The method of claim 33 wherein the monocotyledonous plant is selected from the group consisting of barley, oat, wheat, maize, rice, sorghum, orchardgrass, tall fescue, red fescue, creeping bentgrass and Kentucky bluegrass.

35. (Previously Amended) A method for regenerating a plant from plant tissue, comprising:

incubating plant tissue on a growth medium under dim light of approximately 10 to 30 μ E for a sufficient time to produce green regenerative tissue, wherein the growth medium comprises

auxin at a concentration of about 0.1 mg/L to about 5 mg/L, cytokinin at a concentration of from 0.0 mg/L to about 2 mg/L, copper at a concentration of about 0.1 μ M to about 50 μ M and a carbon source; and

transferring the regenerative tissue to a regeneration medium and incubating the tissue so as to produce a plant.

36. (Original) The method of claim 35 wherein the carbon source comprises maltose or sucrose.

37. (Original) The method of claim 35 wherein the auxin is selected from the group consisting of 2,4-dichlorophenoxyacetic acid, dicamba, naphthaleneacetic acid, indoleacetic acid, picloram, 2,4,5-trichlorophenoxyacetic acid and mixtures thereof.

38. (Original) The method of claim 35 wherein the cytokinin is selected from the group consisting of zeatin, BAP and mixtures thereof.

39. (Original) The method of claim 35 wherein the plant tissue is callus derived from an immature embryo or a mature seed.

40. (Previously Amended) The method of claim 35 further comprising introducing a nucleic acid into at least one cell of the green regenerative tissue to produce transformed tissue.

41. (Previously Amended) The method of claim 40 further comprising selecting the transformed plant tissue on a growth medium comprising a selective agent.

42. (Previously Added) The method of claim 7 wherein the carbon source is maltose or sucrose.